```
=> d full his

     (FILE 'HOME' ENTERED AT 13:18:19 ON 04 MAY 2003)

     FILE 'REGISTRY' ENTERED AT 13:18:48 ON 04 MAY 2003
L1             1 SEA ABB=ON  PLU=ON  PHOSPHOGLUCOSE ISOMERASE/CN
                 D

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,
     BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,
     CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,
     DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 13:19:50 ON
     04 MAY 2003
                SEA L1
               ---------
                 0*  FILE ADISCTI
               147   FILE AGRICOLA
                 1   FILE ANABSTR
                 0*  FILE AQUASCI
                71   FILE BIOBUSINESS
                 0*  FILE BIOCOMMERCE
               478   FILE BIOSIS
                 0*  FILE CABA
                 0*  FILE CAPLUS
                 0*  FILE CEABA-VTB
                 0*  FILE CONFSCI
                 0*  FILE CROPB
                 0*  FILE CROPU
                 0*  FILE DDFB
                 0*  FILE DDFU
                 0*  FILE DGENE
                 0*  FILE DRUGB
                 0*  FILE DRUGU
                 0*  FILE EMBAL
                 0*  FILE ESBIOBASE
                 0*  FILE FEDRIP
                 0*  FILE FOMAD
                 0*  FILE FOREGE
                 0*  FILE FROSTI
                 0*  FILE GENBANK
                 0*  FILE HEALSAFE
                 0*  FILE IFIPAT
                 0*  FILE KOSMET
                 0*  FILE LIFESCI
                 0*  FILE MEDICONF
                 0*  FILE NTIS
                 0*  FILE NUTRACEUT
                 0*  FILE OCEAN
                 0*  FILE PASCAL
                 0*  FILE PCTGEN
                 0*  FILE PHARMAML
                 0*  FILE PHIC
                 0*  FILE PHIN
                 0*  FILE SCISEARCH
                47   FILE TOXCENTER
                 0*  FILE USPATFULL
                 0*  FILE USPAT2
                 0*  FILE VETB
                 0*  FILE VETU
L2               QUE ABB=ON  PLU=ON  L1
                ---------

     FILE 'BIOSIS, AGRICOLA, BIOBUSINESS, TOXCENTER, ANABSTR' ENTERED AT
     13:25:22 ON 04 MAY 2003
L3          4500 SEA ABB=ON  PLU=ON  L1
L4         41684 SEA ABB=ON  PLU=ON  PURINE NUCLEOSIDE# OR (NUCLEOSIDES (L)
                 PURINE) OR PURINE RIBONUCLEOSIDE# OR PURINE
L*** DEL       0 S L4 (L) PREP/RL
L5            16 SEA ABB=ON  PLU=ON  L3 (L) L4
```

L6 0 SEA ABB=ON PLU=ON L5 (L) (ESCHERICHIA COLI OR E# COLI OR PARACOLOBACTRUM COLIFORME)

=> d ibib ab 1-15

L7 ANSWER 1 OF 15 TOXCENTER COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:74000 TOXCENTER
COPYRIGHT: Copyright 2003 ACS
DOCUMENT NUMBER: CA13710137412C
TITLE: Genetic differentiation between sympatric populations of Bacillus cereus and Bacillus thuringiensis
AUTHOR(S): Vilas-Boas, Gislayne; Sanchis, Vincent; Lereclus, Didier; Lemos, Manoel Victor F.; Bourguet, Denis
CORPORATE SOURCE: Unite de Recherches de Lutte Biologique, Institut National de la Recherche Agronomique, La Miniere, Guyancourt, 78 285, Fr..
SOURCE: Applied and Environmental Microbiology, (2002) Vol. 68, No. 3, pp. 1414-1424.
CODEN: AEMIDF. ISSN: 0099-2240.
COUNTRY: FRANCE
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 2002:210029
LANGUAGE: English
ENTRY DATE: Entered STN: 20020326
Last Updated on STN: 20020903
AB Little is known about genetic exchanges in natural populations of bacteria of the spore-forming Bacillus cereus group, because no population genetics studies have been performed with local sympatric populations. We isolated strains of Bacillus thuringiensis and B. cereus from small samples of soil collected at the same time from two sep. geog. sites, one within the forest and the other at the edge of the forest. A total of 100 B. cereus and 98 B. thuringiensis strains were isolated and characterized by electrophoresis to det. allelic compn. at nine enzymic loci. We obsd. genetic differentiation between populations of B. cereus and B. thuringiensis. Populations of a given Bacillus species-B. thuringiensis or B. cereus-were genetically more similar to each other than to populations of the other Bacillus species. Hemolytic activity provided further evidence of this genetic divergence, which remained evident even if putative clones were removed from the data set. Our results suggest that the rate of gene flow was higher between strains of the same species, but that exchanges between B. cereus and B. thuringiensis were nonetheless possible. Linkage disequil. anal. revealed sufficient recombination for B. cereus populations to be considered panmictic units. In B. thuringiensis, the balance between clonal proliferation and recombination seemed to depend on location. Overall, our data indicate that it is not important for risk assessment purposes to det. whether B. cereus and B. thuringiensis belong to a single or two species. Assessment of the biosafety of pest control based on B. thuringiensis requires evaluation of the extent of genetic exchange between strains in realistic natural conditions.

L7 ANSWER 2 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
ACCESSION NUMBER: 2002:197236 BIOSIS
DOCUMENT NUMBER: PREV200200197236
TITLE: Identification of major outer surface proteins of Streptococcus agalactiae.
AUTHOR(S): Hughes, Martin J. G. (1); Moore, Joanne C.; Lane, Jonathan D.; Wilson, Rebecca; Pribul, Philippa K.; Younes, Zabin N.; Dobson, Richard J.; Everest, Paul; Reason, Andrew J.; Redfern, Joanne M.; Greer, Fiona M.; Paxton, Thanai; Panico, Maria; Morris, Howard R.; Feldman, Robert G.; Santangelo, Joseph D.
CORPORATE SOURCE: (1) 545 Eskdale Rd., Winnersh Triangle, Wokingham, Berks, RG41 5TU: m.hughes@microscience.com UK
SOURCE: Infection and Immunity, (March, 2002) Vol. 70, No. 3, pp. 1254-1259. print.
ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
AB To identify the major outer surface proteins of Streptococcus agalactiae

(group B streptococcus), a proteomic analysis was undertaken. An extract of the outer surface proteins was separated by two-dimensional electrophoresis. The visualized spots were identified through a combination of peptide sequencing and reverse genetic methodologies. Of the 30 major spots identified as S. agalactiae specific, 27 have been identified. Six of these proteins, previously unidentified in S. agalactiae, were sequenced and cloned. These were ornithine carbamoyltransferase, phosphoglycerate kinase, nonphosphorylating glyceraldehyde-3-phosphate dehydrogenase, purine nucleoside phosphorylase, enolase, and glucose-6-phosphate isomerase. Using a gram-positive expression system, we have overexpressed two of these proteins in an in vitro system. These recombinant, purified proteins were used to raise antisera. The identification of these proteins as residing on the outer surface was confirmed by the ability of the antisera to react against whole, live bacteria. Further, in a neonatal-animal model system, we demonstrate that some of these sera are protective against lethal doses of bacteria. These studies demonstrate the successful application of proteomics as a technique for identifying vaccine candidates.

L7 ANSWER 3 OF 15 TOXCENTER COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:160876 TOXCENTER
COPYRIGHT: Copyright 2003 ACS
DOCUMENT NUMBER: CA13707089412D
TITLE: Detection of variations in the DNA methylation profile of genes in the determining the risk of disease
AUTHOR(S): Berlin, Kurt; Piepenbrock, Christian; Olek, Alexander
CORPORATE SOURCE: ASSIGNEE: Epigenomics A.-G.
PATENT INFORMATION: WO 2001077373 A2 18 Oct 2001
SOURCE: (2001) PCT Int. Appl., 636 pp.
CODEN: PIXXD2.
COUNTRY: GERMANY, FEDERAL REPUBLIC OF
DOCUMENT TYPE: Patent
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 2001:828415
LANGUAGE: German
ENTRY DATE: Entered STN: 20020723
Last Updated on STN: 20030429

AB The invention relates to an oligonucleotide kit as probe for the detection of relevant variations in the DNA methylation of a target group of genes. The invention further relates to the use of the same for detg. the gene variant with regard to DNA methylation, a medical device, using an oligonucleotide kit, a method for detg. the methylation state of an individual and a method for the establishment of a model for establishing the probability of onset of a disease state in an individual. Such diseases may be: undesired pharmaceutical side-effects; cancerous diseases; CNS dysfunctions, injuries or diseases; aggressive symptoms or relational disturbances; clin., psychol. and social consequences of brain injury; psychotic disorders and personality disorders; dementia and/or assocd. syndromes; cardiovascular disease, dysfunction and damage; dysfunction, damage or disease of the gastrointestinal tract; dysfunction, damage or disease of the respiratory system; injury, inflammation, infection, immunity and/or anastasis; dysfunction, damage or disease of the body as an abnormal development process; dysfunction, damage or disease of the skin, muscle, connective tissue or bones; endocrine and metabolic dysfunction, damage or disease; headaches or sexual dysfunction. This abstr. record is one of several records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.

L7 ANSWER 4 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:267910 BIOSIS
DOCUMENT NUMBER: PREV199598282210
TITLE: Allozyme variation in a freshwater mussel population (Coelatura kunenensis Mousson, 1887) from Southern Africa.
AUTHOR(S): Van Der Bank, F. H.
CORPORATE SOURCE: Res. Unit Aquatic Terrestrial Ecosystems, Rand Afrikaans University, PO Box 524, Auckland Park 2006 South Africa
SOURCE: Water S A (Pretoria), (1995) Vol. 21, No. 2, pp. 153-157.
ISSN: 0378-4738.

DOCUMENT TYPE: Article
LANGUAGE: English
AB Gene products of 35 protein coding loci in Coelatura kunenensis (Mollusca, Lamellibranchiata) were examined by horizontal starch gel electrophoresis. Electrophoretic analysis of enzymatic proteins revealed genetic variation at 12 (34.3%) of the loci studied. Values of 28.57 (0.95 criterion), 1.43 (+- 0.12) and 0.075 (+- 0.025) were obtained for the percentage of polymorphic loci, the mean number of alleles per locus and average heterozygosity respectively. Genetic variation compares favorably with values obtained for other species in general, but it is less than previous estimates based on fewer loci for intertidal mollusc and freshwater bivalve species.

L7 ANSWER 5 OF 15 BIOBUSINESS COPYRIGHT 2003 BIOSIS
ACCESSION NUMBER: 95:41090 BIOBUSINESS
DOCUMENT NUMBER: 0714765
TITLE: Allozyme variation in a freshwater mussel population (Coelatura kunenensis Mousson, 1887) from Southern Africa.
AUTHOR: Van Der Bank F H
CORPORATE SOURCE: Res. Unit Aquatic Terrestrial Ecosystems, Rand Afrikaans University, PO Box 524, Auckland Park 2006, South Africa
SOURCE: Water S A (Pretoria), (1995) Vol.21, No.2, P.153-157. ISSN: 0378-4738.
FILE SEGMENT: NONUNIQUE
LANGUAGE: ENGLISH
AB Gene products of 35 protein coding loci in Coelatura kunenensis (Mollusca, Lamellibranchiata) were examined by horizontal starch gel electrophoresis. Electrophoretic analysis of enzymatic proteins revealed genetic variation at 12 (34.3%) of the loci studied. Values of 28.57 (0.95 criterion), 1.43 (+- 0.12) and 0.075 (+- 0.025) were obtained for the percentage of polymorphic loci, the mean number of alleles per locus and average heterozygosity respectively. Genetic variation compares favorably with values obtained for other species in general, but it is less than previous estimates based on fewer loci for intertidal mollusc and freshwater bivalve species.

L7 ANSWER 6 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:110962 BIOSIS
DOCUMENT NUMBER: PREV199598125262
TITLE: T24 H-ras gene expression increases the activity of phosphoglycerate kinase, enolase and pyruvate kinase and decreases the activity of adenosine deaminase in fibroblast cells.
AUTHOR(S): Liloglou, T.; Tegos, C.; Spandidos, D. A. (1)
CORPORATE SOURCE: (1) Inst. Biol. Res. Biotechnol., Natl. Hellenic Res. Foundation, 48 Vas. Constantinou Avenue, 116 35 Athens Greece
SOURCE: Oncology Reports, (1994) Vol. 1, No. 6, pp. 1193-1197.
DOCUMENT TYPE: Article
LANGUAGE: English
AB We examined the possible implication of ras in the regulation of the activity of several metabolic enzymes by employing an inducible H-ras expression system (RFLSVrasLAP cell line), in which the addition of IPTG decreases the levels of ras p21 3-fold. We measured the activity of hexokinase (E.C. 2.7.1.1.), glucose phosphate isomerase (E.C. 5.3.1.9), phospho-fructokinase (E.C. 2.7.1.11), aldolase (E.C. 4.1.2.13), phosphoglycerate kinase (E.C. 2.7.2.3), enolase (E.C. 4.2.1.11), pyruvate kinase (E.C. 2.7.1.40), lactate dehydrogenase (E.C. 1.1.1.27), adenosine deaminase (E.C. 3.5.4.4) and purine nucleoside phosphorylase (E.C. 2.4.2. 1) from cells grown in the presence and absence of IPTG. We found that the addition of IPTG to RFLSVrasLAP cells led to lower activity of phosphoglycerate kinase (p=0.004), enolase (p=0.027) and pyruvate kinase (p=0.031). Enolase mRNA levels were found to be increased in cells overexpressing either the normal or mutant H-ras. The total rate of glycolysis was not affected by H-ras expression indicating that the implication of H-ras in the activity of phosphoglycerate kinase, enolase and pyruvate kinase may be associated with glycolysis-independent functions of these enzymes. Adenosine deaminase activity was found to increase after IPTG addition (P=0.009), indicating also a possible role

for H-ras in the control of the purine nucleotide salvage pathway.

L7 ANSWER 7 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:171567 BIOSIS
DOCUMENT NUMBER: PREV199598185867
TITLE: Genetic variation in the hooded seal, Cystophora cristata, based on enzyme polymorphism and multi-locus DNA fingerprinting.
AUTHOR(S): Sundt, Rolf C.; Dahle, Geir; Naevdal, Gunnar (1)
CORPORATE SOURCE: (1) Dep. Fisheries Marine Biology, Univ. Bergen, High-Technology Centre, N-5020 Bergen Norway
SOURCE: Hereditas (Lund), (1994) Vol. 121, No. 2, pp. 147-155. ISSN: 0018-0661.
DOCUMENT TYPE: Article
LANGUAGE: English
AB The genetic population structure of hooded seal, Cystophora cristata, was examined by electrophoretic analysis of allozymes and with multilocus DNA fingerprinting. Samples were collected in the Jan Mayen aria and off Newfoundland. Allele products were resolved by isoelectric focusing. Only five of 32 protein-coding loci investigated were polymorphic at the 95% level. The proportion of polymorphic loci was estimated to P = 0.233, and average heterozygosity to H = 0.047. Tissue distribution, genotype distribution, and approximate pI (4 degree C) of the proteins are reported. The allele frequencies of the AAT-2, GPD-2, and GPI-1 loci, were used in genetic comparisons of samples from the two stocks. Chi-square and G-tests showed no significant difference among the samples from the two groups. Highly variable profiles of HaeIII, HinfI and MboI digested genomic DNA were revealed using the human minisatellites 33.15 and 33.6 (HinfI digests only) as hybridization probes. Comparisons of band-sharing coefficients from HinfI and MboI digest were carried out. We were unable to detect significant differences in band-sharing between Newfoundland and the Jan Mayen area. The hypothesis that there is a considerable degree of intermixing between the stocks cannot be rejected.

L7 ANSWER 8 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1988:191994 BIOSIS
DOCUMENT NUMBER: BR34:95181
TITLE: ALTERATIONS IN ISOZYMES OF A SPONTANEOUSLY TRANSFORMED PORCINE ENDOTHELIAL CELL LINE DURING LONG-TERM SERIAL CULTURE.
AUTHOR(S): YAMAMOTO M; YAMAMOTO K
CORPORATE SOURCE: DEP. BIOL., TOKYO METROPOL. INST. GERONTOL., TOKYO.
SOURCE: FIFTY-EIGHTH ANNUAL MEETING OF THE ZOOLOGICAL SOCIETY OF JAPAN, TOYAMA, JAPAN, OCTOBER 7-9, 1987. ZOOL SCI (TOKYO), (1987) 4 (6), 998.
CODEN: ZOSCEX. ISSN: 0289-0003.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L7 ANSWER 9 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1985:14697 BIOSIS
DOCUMENT NUMBER: BR28:14697
TITLE: ON THE DISTRIBUTION AND CHARACTERISTICS OF ISOZYME EXPRESSION IN MYCOPLASMA ACHOLEPLASMA AND UREAPLASMA SPECIES.
AUTHOR(S): O'BRIEN S J; SIMONSON J M; RAZIN S; BARILE M F
CORPORATE SOURCE: SECTION OF GENETICS, NATL. CANCER INST., BUILD. 560, ROOM 11-85, FREDERICK, MD 21701.
SOURCE: 4TH INTERNATIONAL CONGRESS OF THE INTERNATIONAL ORGANIZATION FOR MYCOPLASMOLOGY, TOKYO, JAPAN, SEPT. 1982. YALE J BIOL MED, (1984) 56 (5-6), 701-708.
CODEN: YJBMAU. ISSN: 0044-0086.
FILE SEGMENT: BR; OLD
LANGUAGE: English

L7 ANSWER 10 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1984:274505 BIOSIS
DOCUMENT NUMBER: BA78:10985

TITLE: INCIDENCE OF INHERITED ENZYME ACTIVITY VARIANTS IN FERAL MOUSE POPULATIONS.
AUTHOR(S): BULFIELD G; HALL J M; TSAKAS S
CORPORATE SOURCE: GENETICS GROUP, ARC POULTRY RES. CENT., ROSLIN, MIDLOTHIAN, EH25 9PS, UK.
SOURCE: BIOCHEM GENET, (1984) 22 (1-2), 133-138.
CODEN: BIGEBA. ISSN: 0006-2928.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Wild caught mice (173) (Mus musculus) from multiple sites in Europe for variation in the activity of 14 enzymes [adenylate kinase, EC 2.7.4.3; enolase, EC 4.2.1.11; glyceraldehyde phosphate dehydrogenase, EC 1.2.1.12; glutathione reductase, EC 1.6.4.2; hexokinase, EC 2.7.1.1; phosphofructokinase, EC 2.7.1.11; 6-phosphogluconate dehydrogenase, EC 1.1.1.43; glucosephosphate isomerase, EC 5.3.1.9; pyruvate kinase, EC 2.7.1.40; triosephosphate isomerase, EC 5.3.1.1; purine nucleoside phosphorylase; adenosine deaminase, EC 3.5.4.4] and found 8 different mutants with low enzyme activity; an incidence of 3.69/1000. This compares with the incidence of 3.26/1000 found for low enzyme activity variants in man.

L7 ANSWER 11 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1981:284198 BIOSIS
DOCUMENT NUMBER: BA72:69182
TITLE: ANALYSIS OF MULTIPLE ISO ENZYME EXPRESSION AMONG 22 SPECIES OF MYCOPLASMA AND ACHOLEPLASMA.
AUTHOR(S): O'BRIEN S J; SIMONSON J M; GRABOWSKI M W; BARILE M F
CORPORATE SOURCE: LAB. OF VIRAL CARCINOGENESIS, NATIONAL CANCER INST., FREDERICK, MARYLAND 21701.
SOURCE: J BACTERIOL, (1981) 146 (1), 222-232.
CODEN: JOBAAY. ISSN: 0021-9193.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Crude extracts of triple-cloned, purified cultures of 22 spp. of Mycoplasma and Acholeplasma were examined for expression of 21 isozyme systems routinely used to type mammalian cells. Nine previously described enzymes (purine nucleoside phosphorylase, adenylate kinase, dipeptidase, esterase, glyceraldehyde-3-phosphate dehydrogenase, glucose phosphate isomerase, glucose-6-phosphate dehydrogenase, 6-phosphogluconate dehydrogenase and superoxide dismutase) and 3 enzymes not previously reported in mycoplasmas (triose phosphate isomerase, inorganic pyrophosphatase and acid phosphatase) were detected in some or all species examined. New information is provided on the enzymatic expressions of these organisms. Three of the isozyme systems (superoxide dismutase, glucose-6-phosphate dehydrogenase and 6-phosphogluconate dehydrogenase) were present in Acholeplasma spp. but not in any Mycoplasma spp. The characteristic pattern of electrophoretic mobility of the 12 isozyme systems also provides a useful biochemical property for identification, characterization and classification of these mycoplasmas. Mycoplasma isozyme expression for 7 enzymes were readily detected in various infected-cell culture lines by using either cell extracts or concentrated cell culture fluids. Mycoplasma-specific enzymes found in infected-cell extracts had the same electrophoretic mobility patterns as enzymes obtained from broth-grown mycoplasmas of the same species. Expression of homologous mammalian enzymes was not detectably altered by infection with mycoplasmas.

L7 ANSWER 12 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1980:14350 BIOSIS
DOCUMENT NUMBER: BR18:14350
TITLE: ADVANCES IN HEREDITARY RED CELL ENZYME ANOMALIES.
AUTHOR(S): KAHN A; KAPLAN J-C; DREYFUS J-C
CORPORATE SOURCE: INST. PATHOL. MOL., CENT. HOSP. UNIV. COCHIN, INST. NATL. SANTE MED. UNITE 129, 24 RUE DU FAUBOURG ST.-JACQUES, 75674 PARIS CEDEX 14, FR.
SOURCE: Hum. Genet., (1979) 50 (1), 1-28.
CODEN: HUGEDQ. ISSN: 0340-6717.
FILE SEGMENT: BR; OLD
LANGUAGE: English

L7 ANSWER 13 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1978:152216 BIOSIS
DOCUMENT NUMBER: BA65:39216
TITLE: GENE MAPPING IN MUS-MUSCULUS BY INTERSPECIFIC CELL HYBRIDIZATION ASSIGNMENT OF THE GENES FOR TRI PEPTIDASE 1 EC-3.4.11 TO CHROMOSOME 10 DI PEPTIDASE 2 EC-3.4.1.1 TO CHROMOSOME 18 ACID PHOSPHATASE 1 EC-3.1.3.2 TO CHROMOSOME 12 AND ADENYLATE KINASE 1 EC-2.7.4.3 TO CHROMOSOME 2.
AUTHOR(S): FRANCKE U; LALLEY P A; MOSS W; IVY J; MINNA J D
CORPORATE SOURCE: DEP. PEDIATR. M-009, SCH. MED., UNIV. CALIF. SAN DIEGO, LA JOLLA, CALIF. 92093, USA.
SOURCE: CYTOGENET CELL GENET, (1977) 19 (2-3), 57-84.
CODEN: CGCGBR. ISSN: 0301-0171.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Chinese hamster [Cricetulus griseus] .times. mouse somatic cell hybrids segregating mouse chromosomes were examined for their mouse chromosome content using trypsin-Giemsa (GTG) banding and Hoechst 33258 staining techniques. Simultaneously, they were scored for the presence of 24 mouse enzymes. The results confirm the assignments of 11 genes previously mapped by sexual genetics: Dip-1 and Id-1[dipeptidase, EC 3.4.1.1., and isocitrate dehydrogenase, EC 1.1.1.42] to chromosome 1; Pgm-2 and Pgd to 4[phosphoglucomutase, EC 2.7.5.1. and 6-phosphogluconate dehydrogenase, EC 1.1.1.44]; Pmg-1 to 5; Gpi-1 to 7[glucose phosphate isomerase, EC 5.3.1.8]; Gr-1 to 8[glutathione reductase, EC 1.6.4.2]; Mpi-1 and Mod-1 to 9 [mannose phosphate isomerase, EC 5.3.1.8, and malic enzyme, EC 1.1.1.40]; Np-1 and Es-10 to 14[purine nucleoside phosphorylase, EC 2.4.2.1, and esterase, EC 3.1.1.1]. They also confirm chromosomally the assignments of 3 genes that were made by other somatic cell genetic studies: Aprt to 8; Hprt and .alpha.-gal[adenine phosphoribosyltransferase, EC 2.4.2.7, hypoxanthine phosphoribosyltransferase, EC 2.4.2.8, and .alpha.-galactosidase, EC 3.2.1.22] to the X chromosome. But most importantly, 4 enzyme loci are assigned to 4 chromosomes that until now were not known to carry a biochemical marker which is expressed in cultured cells: Trip-1[tripeptidase, EC 3.4.11] to 10; Dip-2 to 18; Acp-1[acid phosphatase, EC 3.1.3.2] to 12; and Ak-1[adenylate kinase, EC 2.7.43] to 2. Cytogenetic examination of clones showing discordant segregation of HPRT and A-GAL, suggested the assignment of .alpha.-gal to region XE .fwdarw. XF of the mouse X chromosome. The cytologic studies provide a comparison between data from sexual genetics and somatic cell hybrids and validate hybrid cell techniques. They provide evidence of the reliability of scoring chromosomes by GTG and Hoechst staining and stress the importance of identifying clones with multiple chromosome rearrangements. Striking examples of nonrandom segregation of mouse chromosomes were observed in these hybrids with preferential retention of 15 and segregation of 11 and the Y chromosome.

L7 ANSWER 14 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1974:134434 BIOSIS
DOCUMENT NUMBER: BA57:34134
TITLE: PURINE METABOLISM AND RIBOFLAVINE FORMATION IN MICROORGANISMS PART 9 INFLUENCE OF IRON ON THE COURSE OF GLUCOSE CATABOLISM IN CANDIDA-GUILLIERMONDII.
AUTHOR(S): ZUR NIEDEN K; SCHLEE D; REINBOTHE H
SOURCE: BIOCHEM PHYSIOL PFLANZ (BPP), (1973) 164 (2), 135-141.
CODEN: BPPFA4. ISSN: 0015-3796.
FILE SEGMENT: BA; OLD
LANGUAGE: Unavailable

L7 ANSWER 15 OF 15 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1977:6506 BIOSIS
DOCUMENT NUMBER: BR13:6506
TITLE: POST TRANSLATIONAL ALTERATIONS OF HUMAN ERYTHROCYTE ENZYMES.
AUTHOR(S): TURNER B M; FISHER R A; HARRIS H
SOURCE: MARKERT, CLEMENT L. (ED.). ISOZYMES I. MOLECULAR STRUCTURE. THIRD INTERNATIONAL CONFERENCE. NEW HAVEN, CONN., U.S.A.,

APRIL 18-20, 1974. XIX+856P. ILLUS. ACADEMIC PRESS: NEW YORK, N.Y., U.S.A.; LONDON, ENGLAND, 1975 (RECD 1976), 781-795.
ISBN: 0-12-472701-8.
FILE SEGMENT: BR; OLD
LANGUAGE: Unavailable

```
=> d full his

     (FILE 'HOME' ENTERED AT 13:11:26 ON 04 MAY 2003)

     FILE 'REGISTRY' ENTERED AT 13:11:37 ON 04 MAY 2003
L1             1 SEA ABB=ON  PLU=ON  PHOSPHOGLUCOSE ISOMERASE/CN

     FILE 'HCAPLUS' ENTERED AT 13:12:29 ON 04 MAY 2003

     FILE 'REGISTRY' ENTERED AT 13:12:32 ON 04 MAY 2003
                SET SMARTSELECT ON
L2              SEL PLU=ON  L1 1- CHEM :      19 TERMS
                SET SMARTSELECT OFF

     FILE 'HCAPLUS' ENTERED AT 13:12:33 ON 04 MAY 2003
L3          5260 SEA ABB=ON  PLU=ON  L2
L4         37816 SEA ABB=ON  PLU=ON  PURINE NUCLEOSIDE# OR (NUCLEOSIDES (L)
                PURINE) OR PURINE RIBONUCLEOSIDE# OR PURINE
L5            16 SEA ABB=ON  PLU=ON  L3 (L) L4
L6             0 SEA ABB=ON  PLU=ON  L5 (L) (ESCHERICHIA COLI OR E# COLI OR
                PARACOLOBACTRUM COLIFORME)
L7            13 SEA ABB=ON  PLU=ON  L5 AND PD<19970718
                D IBIB AB 1-13
L8             0 SEA ABB=ON  PLU=ON  L4 (L) PREP/RL (L) L3
```

=> d ibib ab 1-13

L7 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:221598 HCAPLUS
DOCUMENT NUMBER: 122:236499
TITLE: T24 H-ras gene expression increases the activity of phosphoglycerate kinase, enolase and pyruvate kinase and decreases the activity of adenosine deaminase in fibroblast cells
AUTHOR(S): Liloglou, T.; Tegos, C.; Spandidos, D. A.
CORPORATE SOURCE: Institute Biological Research and Biotechnology, National Hellenic Research Foundation, Athens, 116 35, Greece
SOURCE: Oncology Reports (**1994**), 1(6), 1193-7
CODEN: OCRPEW; ISSN: 1021-335X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We examd. the possible implication of ras in the regulation of the activity of several metabolic enzymes by employing an inducible H-ras expression system (RFLSVrasLAP cell line), in which the addn. of IPTG decreases the levels of ras p21 3-fold. We measured the activity of hexokinase (E.C. 2.7.1.1.), **glucose phosphate isomerase** (**E.C. 5.3.1.9**), phospho-fructokinase (E.C. 2.7.1.11), aldolase (E.C. 4.1.2.13), phosphoglycerate kinase (E.C. 2.7.2.3), enolase (E.C. 4.2.1.11), pyruvate kinase (E.C. 2.7.1.40), lactate dehydrogenase (E.C. 1.1.1.27), adenosine deaminase (E.C. 3.5.4.4) and **purine nucleoside** phosphorylase (E.C. 2.4.2.1) from cells grown in the presence and absence of IPTG. We found that the addn. of IPTG to RFLSVrasLAP cells led to lower activity of phosphoglycerate kinase, enolase and pyruvate kinase. Enolase mRNA levels were increased in cells overexpressing either the normal or mutant H-ras. The total rate of glycolysis was not affected by H-ras expression indicating that the implication of H-ras in the activity of phosphoglycerate kinase, enolase and pyruvate kinase may be assocd. with glycolysis-independent functions of these enzymes. Adenosine deaminase activity was found to increase after IPTG addn., indicating also a possible role for H-ras in the control of the **purine** nucleotide salvage pathway.

L7 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1991:533391 HCAPLUS
DOCUMENT NUMBER: 115:133391
TITLE: Hypoxanthine phosphoribosyl transferase deficiency, hematopoiesis and fertility in the mouse
AUTHOR(S): Ansell, J. D.; Samuel, K.; Whittingham, D. G.; Patek, C. E.; Hardy, K.; Handyside, A. H.; Jones, K. W.; Muggleton-Harris, A. L.; Taylor, A. H.; Hooper, M. L.
CORPORATE SOURCE: Dep. Zool., Univ. Edinburgh, Edinburgh, EH9 3JT, UK
SOURCE: Development (Cambridge, United Kingdom) (**1991**), 112(2), 489-98
CODEN: DEVPED; ISSN: 0950-1991
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors have looked for effects of deficiency in hypoxanthine phosphoribosyl transferase (HPRT) in the mouse comparable to non-behavioral consequences of HPRT-deficiency in humans. HPRT-deficient humans show abnormalities in hematopoiesis and, in heterozygotes, there is strong selection in hematopoietic tissues against HPRT-deficient cells arising as a result of X-chromosome inactivation. Two situations were examd. in mice in which HPRT- and HPRT+ cells occur in the same individual. First, in chimeras resulting from the injection of HPRT- embryonal stem cells into HPRT+ blastocysts the fate of HPRT- and HPRT+ cell populations was monitored by their expression of different isoenzymes of **glucose phosphate isomerase** and also, in those chimeras that resulted from injecting the male ES cells into female blastocysts, by in situ hybridization using a Y-chromosome-specific repetitive DNA probe. There was a small statistically significant selection against the HPRT- population in hematopoietic tissues in both XX.tautm.XY and XY.tautm.XY chimeras. Second, in female mice doubly

heterozygous for HPRT-deficiency and for an electrophoretic variant of the X-linked enzyme phosphoglycerate kinase, there was a similar small statistically significant selection against the HPRT- population in hematopoietic tissues. While further work is required to establish whether this selection is a consequence of the HPRT mutation, it is clear that any selection against cells in the hematopoietic system as a consequence of HPRT deficiency is at most small compared with the effect seen in humans. In HPRT-deficient human males surviving beyond the normal age of puberty, there is testicular atrophy. However, no effect of HPRT-deficiency on the fertility of either male or female mice was found. Thus, as with effects on behavior, the consequences of HPRT deficiency for hematopoiesis and testis development in the mouse are at most small compared with those in the human. Therefore, the reason for the difference in effects between the two species lies in a difference in **purine**-related intermediary metab. per se, rather than in its interaction with brain amine biochem.

L7 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:611687 HCAPLUS
DOCUMENT NUMBER: 111:211687
TITLE: Enzymic activities of carbohydrate, purine, and pyrimidine metabolism in the Anaeroplasmataceae (class Mollicutes)
AUTHOR(S): Petzel, J. P.; McElwain, M. C.; DeSantis, D.; Manolukas, J.; Williams, M. V.; Hartman, P. A.; Allison, M. J.; Pollack, J. D.
CORPORATE SOURCE: Dep. Microbiol., Iowa State Univ., Ames, IA, 50011-3211, USA
SOURCE: Archives of Microbiology (**1989**), 152(4), 309-16
CODEN: AMICCW; ISSN: 0302-8933
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cell-free exts. of two strictly anaerobic mollicutes, Anaeroplasma intermedium 5LA and Asteroleplasma anaerobium 161T, were tested for enzymic activities of intracellular carbohydrate metab. Asteroleplasma anaerobium was also tested for enzymes for purine and pyrimidine metab. Both organisms had enzymic activities assocd. with the nonoxidative portion of the pentose phosphate pathway, and with the Embden-Meyerhoff-Parnas pathway. The 6-phosphofructokinase (PFK) of Asteroleplasma anaerobium was ATP-dependent, whereas the PFK of Anaeroplasma intermedium was PPi-dependent. The two anaerobic mollicutes also differed with respect to the enzymes that converted phosphoenolpyruvate (PEP) to pyruvate; Anaeroplasma intermedium had pyruvate kinase activity, but Asteroleplasma anaerobium had pyruvate, orthophosphate dikinase activity (PPi-dependent). Both organisms had lactate dehydrogenase activity which was activated by fructose 1,6-bisphosphate (Fru-1,6-P2). Anaeroplasma intermedium had activity for PEP carboxykinase (activated by Fru-1,6-P2), but Asteroleplasma anaerobium did not. PEP carboxytransphosphorylase activity was not detected in either organism. Anaeroplasma intermedium had malate dehydrogenase and isocitrate dehydrogenase activities, but it had no activities for the three other tricarboxylic acid cycle enzymes examd.; Asteroleplasma anaerobium had malate dehydrogenase activity only. Asteroleplasma anaerobium had enzymic activities for the interconversion of purine nucleobases, (deoxy)ribonucleosides, and (deoxy)ribomononucleotides, including PPi-dependent nucleoside kinase, reported heretofore only in some other mollicutes. Asteroleplasma anaerobium could synthesize dTDP by the thymine salvage pathway if deoxyribose 1-phosphate was provided, and it had dUTPase, ATPase, and dCMP kinase activities. It lacked (deoxy)cytidine deaminase, dCMP deaminase, and deoxycytidine kinase activities.

L7 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1984:526447 HCAPLUS
DOCUMENT NUMBER: 101:126447
TITLE: On the distribution and characteristics of isozyme expression in Mycoplasma, Acholeplasma, and Ureaplasma species

AUTHOR(S): O'Brien, Stephen J.; Simonson, J. M.; Razin, S.; Barile, M. F.
CORPORATE SOURCE: Lab. Viral Carcinog., Natl. Cancer Inst., Frederick, MD, 21701, USA
SOURCE: Yale Journal of Biology and Medicine (**1983**), 56(5-6), 701-8
CODEN: YJBMAU; ISSN: 0044-0086
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A summary of a survey of three genera of mycoplasmatales (Mycoplasma, Acholeplasma, and Ureaplasma) for isozyme expression is presented. Isozyme anal. of mycoplasmas has been employed in at least three distinct areas: (1) as genetic markers for identification, individualization, and taxonomic classification; (2) as markers for cell culture contamination; and (3) as a qual. measure of the operative metabolic pathways in the diverse species. Five ubiquitous enzymes were found: **purine nucleoside** phosphorylase, adenylate kinase, inorg. pyrophosphatase, dipeptidase, and esterase. Three enzymes, glucose-6-phosphate dehydrogenase, phosphogluconate dehydrogenase, and superoxide dismutase, were restricted to Acholeplasma species and were not detected in Mycoplasma or Ureaplasma. Four glycolytic enzymes, **glucose phosphate isomerase**, triose phosphate isomerase, glyceraldehyde-3-phosphate dehydrogenase, and lactate dehydrogenase, were restricted to those species of Mycoplasma and Acholeplasma capable of glucose fermn. Two of these glycolytic enzymes, **glucose phosphate isomerase** and lactate dehydrogenase, were detected in serovars I and II of U. urealyticum, which is inconsistent with the non-glycolytic activity in this genus.

L7 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1981:403084 HCAPLUS
DOCUMENT NUMBER: 95:3084
TITLE: Analysis of multiple isoenzyme expression among twenty-two species of Mycoplasma and Acholeplasma
AUTHOR(S): O'Brien, Stephen J.; Simonson, Janice M.; Grabowski, Marion W.; Barile, Michael F.
CORPORATE SOURCE: Lab. Viral Carcinog., Natl. Cancer Inst., Frederick, MD, 21701, USA
SOURCE: Journal of Bacteriology (**1981**), 146(1), 222-32
CODEN: JOBAAY; ISSN: 0021-9193
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Crude exts. of triple-cloned, purified cultures of 22 species of Mycoplasma and Acholeplasma were examd. for expression of 21 isoenzyme systems routinely used to type mammalian cells. Nine previously described enzymes (**purine nucleoside** phosphorylase, adenylate kinase, dipeptidase, esterase, glyceraldehyde phosphate dehydrogenase, **glucose phosphate isomerase**, glucose 6-phosphate dehydrogenase, 6-phosphogluconate dehydrogenase, and superoxide dismutase) and 3 enzymes not previously reported in mycoplasmas (triose phosphate isomerase, inorg. pyrophosphatase, and acid phosphatase) were detected in some or all of the species examd. These findings provide new information on the enzymic expression of these organisms. Three of the isoenzyme systems (superoxide dismutase, glucose 6-phosphate dehydrogenase, and 6-phosphogluconate dehydrogenase) were present in Acholeplasma species but not in any Mycopasma species. The characteristic pattern of electrophoretic mobility of the 12 isoenzyme systems also provided a useful biochem. property for identification, characterization, and classification of these mycoplasmas. Mycoplasma isoenzyme expressions for 7 of the enzymes were readily detected in various infected cell culture lines by using either cell exts. or concd. cell culture fluids. Mycoplasma-specific enzymes found in infected cell exts. had the same electrophoretic mobility patterns as enzymes obtained from broth-grown mycoplasmas of the same species. Expression of homologous mammalian enzymes was not detectably altered by infection with mycoplasmas.

L7 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1963:411012 HCAPLUS

DOCUMENT NUMBER: 59:11012
ORIGINAL REFERENCE NO.: 59:2021c-d
TITLE: The effect of beef somatotropic hormone (STH) on the enzymic activity of mouse erythrocytes in vivo
AUTHOR(S): Broun, G.
CORPORATE SOURCE: Lab. Central C.H.R., Rouen, Fr.
SOURCE: Rev. Franc. Etudes Clin. Biol. (**1961**), 6, 597-601
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Injection of beef STH into male mice results in an increase in lactic dehydrogenase, glucose-6-phosphate dehydrogenase, **phosphohexoisomerase**, and **purine nucleoside** phosphorylase in the hemolyzate of erythrocytes in 24-48 hrs. The injection of STH in amts. greater than 1-4 Evans Units results in dissociated and variable data.

L7 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1961:60884 HCAPLUS
DOCUMENT NUMBER: 55:60884
ORIGINAL REFERENCE NO.: 55:11656b-c
TITLE: New method for determination of short-acting preparations of vitamin A
AUTHOR(S): Boguth, W.; Horn, V.; Soliman, M. K.; Weiser, H.
CORPORATE SOURCE: Justus Liebig Univ., Giessen, Germany
SOURCE: Intern. Z. Vitaminforsch. (**1960**), 31, 6-10
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB If castrated female rats be treated with a mixt. of estradiol benzoate (1 part) and testosterone propionate (250 parts), the characteristic estral cornification is much more vigorously induced by min. amts. of vitamin A. No difference in activity occurred between vitamin A and all-trans-vitamin A acetate. 15 references.

L7 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1961:60883 HCAPLUS
DOCUMENT NUMBER: 55:60883
ORIGINAL REFERENCE NO.: 55:11656a-b
TITLE: Mechanism of action of adrenaline on gastric glands
AUTHOR(S): Sklyarov, Ya. P.
SOURCE: Mekhanizm Deistviya Gormonov, Akad. Nauk Ukr. S.S.R., Inst. Fiziol. im. A. A. Bagomol'tsa (**1959**) 237-42
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Adrenaline increased the quantity and pepsin content of gastric secretion. Morphological analysis showed that adrenaline did not equally affect all secretory cells.

L7 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1960:62968 HCAPLUS
DOCUMENT NUMBER: 54:62968
ORIGINAL REFERENCE NO.: 54:12219b-e
TITLE: Mechanism of aging of human red blood cells
AUTHOR(S): Marks, Paul A.; Johnson, Anne B.; Hirschberg, Erich; Banks, Julia
CORPORATE SOURCE: Columbia Univ. Coll. of Physicians & Surgeons, New York, NY
SOURCE: Ann. N.Y. Acad. Sci. (**1958**), 75, 95-105
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C.A. 52, 18762c. In 112 normal subjects, the av. erythrocyte glucose-6-phosphate dehydrogenase (I) activity was 15.9 units; in 66 normal subjects, the av. 6-phosphogluconic dehydrogenase (II) activity was 17.3 units. In patients with reticulocytoses, I was elevated to 29.7 units and II to 36.2 units. These elevations were related to the presence in the blood of these patients of a younger nonreticulated red cell population rather than to the presence of reticulocytes. There was no difference in the av. **purine nucleoside** phosphorylase

(III) activity of normal subjects and patients with reticulocytosis. Fractionation of the whole red cell population by osmotic hemolysis yielded populations which were relatively more enriched with younger or older cells and permitted the comparative analysis of red cells of different ages. The levels of I, II, and **phosphohexose isomerase** were relatively high in young erythrocytes and diminished markedly with the aging of these cells in vivo; levels of III and lactic dehydrogenase exhibited little if any change during the aging process. Analogous results were obtained when red cells of different ages were sepd. by fractional centrifugation rather than osmotic hemolysis. O consumption measured in the presence of methylene blue and acetate-1-C14 incorporation into the total lipide and fatty acids of red cells were consistently greater in young than in old red cells. It is suggested that the diminution in activity of certain crit. enzymes may be a determinant of the life span of the erythrocyte in vivo.

L7 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1960:45827 HCAPLUS
DOCUMENT NUMBER: 54:45827
ORIGINAL REFERENCE NO.: 54:9071f-i
TITLE: Quantitative biochemical studies of Wallerian degeneration in the peripheral and central nervous systems. II. Twelve enzymes
AUTHOR(S): McCaman, Richard E.; Robins, Eli
CORPORATE SOURCE: Washington Univ., St. Louis, MO
SOURCE: J. Neurochem. (**1959**), 5, 32-42
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Quant. microchem. methods have been applied to the study of 12 enzymes and the changes in their activities during Wallerian degeneration in the tibial and optic nerves of the rabbit at 14, 45, and 100 days after transection of the nerves. There was an over-all qual. similarity in the enzymic changes in degenerating tibial nerve with those in degenerating optic nerve for 7 of the 12 enzymes: 5 increased (.beta.-galactosidase, **purine nucleoside** phosphorylase, peptidase, .beta.-glucuronidase, and acid phosphatase); and 2 decreased (aldolase and lactic dehydrogenase). There were striking temporal differences, however, between the enzymes which increased or decreased in both nerves. In the tibial nerve the 5 enzymes which showed an increase in activity had reached a peak at day-14, whereas in the optic nerve they did not reach a peak until 45 or 100 days after section. For the enzymes which decreased in activity, there was a more abrupt drop, as measured at day-14, in the optic than in the tibial nerve. The changes during degeneration in the activities of the remaining enzymes were not even qual. similar for the tibial and optic nerves. These included: for .alpha.-glycerol phosphate dehydrogenase, an increase in optic nerve in contrast to a marked decrease in tibial nerve; for **phosphoglucoisomerase**, a decrease in optic nerve as compared to relatively constant values in tibial nerve; for isocitric dehydrogenase, an increase in tibial nerve as compared to no change in optic nerve; for fumarase, an increase followed in a latter period by a decrease in tibial nerve as compared to no change in optic nerve; and for glucose-6-phosphate dehydrogenase, a decrease in tibial nerve as compared to relatively small fluctuations in the optic nerve.

L7 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1960:2985 HCAPLUS
DOCUMENT NUMBER: 54:2985
ORIGINAL REFERENCE NO.: 54:732h-i,733a
TITLE: Effect of 6-methylpurine on phosphohexose isomerase and lactic dehydrogenase activities of plasma, erthyrocytes, liver, and skeletal muscle
AUTHOR(S): Bodansky, Oscar; Philips, Frederick S.; Scholler, Jean; Sternberg, Stephen S.
CORPORATE SOURCE: Sloan-Kettering Inst., New York, NY
SOURCE: Cancer Research (**1958**), 18, 687-91
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C.A. 51, 5266i. Intraperitoneal injection into rats of 8 mg. of 6-methylpurine produced after 19 days an increase in plasma phosphohexose

isomerase (PHI) and lactic dehydrogenase (LAD) activities of 8-fold and 3-fold, resp., above control values. Corresponding decreases in liver PHI and LAD activities were found, indicating this tissue to be the major source of the increased plasma enzyme activities. Practically no hepatic necrosis appeared. Insignificant enzyme changes were found in erythrocytes and skeletal muscle. Rats starved to points of wt. loss corresponding to that of injected rats showed no marked change in enzyme activity. Atrophied prostate and redn. of hematopoietic tissue in the sternal bone marrow occurred in many of the injected rats.

L7 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1959:33764 HCAPLUS
DOCUMENT NUMBER: 53:33764
ORIGINAL REFERENCE NO.: 53:5979b-c
TITLE: The validation of the quantitative histochemical method for use on post-mortem material. II. The effects of fever and uremia
AUTHOR(S): Robins, Eli; Smith, David E.; Daesch, Geraldine E.; Payne, Kathyrn E.
CORPORATE SOURCE: Washington Univ., St. Louis, MO
SOURCE: J. Neurochem (**1958**), 3, 19-27
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. Lab. Invest. 6, 447(1957). Changes in enzymic activities in 3 layers of the cerebellum of rabbits, as measured by quant. histochem. analyses, were studied at post-mortem intervals of 2 and 6 hrs. The ten enzymes studied (fumarase, .beta.-glucuronidase, glutamic dehydrogenase, **purine nucleoside** phosphorylase, glutamic-oxalacetic transaminase, aldolase, adenosine-triphosphatase, glucose-6-phosphate dehydrogenase, **phosphoglucoisomerase**, and malic dehydrogenase) showed a sufficient degree of stability and absence of diffusion artifact to indicate that valid quant. results can be obtained for these enzymes in material collected within the usual postmortem interval in human autopsies.

L7 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1958:105848 HCAPLUS
DOCUMENT NUMBER: 52:105848
ORIGINAL REFERENCE NO.: 52:18762b-e
TITLE: Effect of age on the enzyme activity in erythrocytes
AUTHOR(S): Marks, Paul A.; Johnson, Anne B.; Hirschberg, Erich
CORPORATE SOURCE: Columbia Univ.
SOURCE: Proc. Natl. Acad. Sci. U.S. (**1958**), 44, 529-36
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The activities of certain enzymes have been studied in mature human erythrocytes of relatively young and old mean cell ages. The samples of young and old red blood cells were sepd. by methods bases on the fact that young, compared to old, erythrocytes are less osmotically fragile and less dense. Of the 5 enzymes studied, glucose-6-phosphate dehydrogenase activity showed the most marked difference between the most and least resistant red blood cell fractions. The mean values for enzyme activity in the 5% most resistant compared to the 5% least resistant erythrocyte fractions differed by a factor of 4.0 for glucose-6-phosphate dehydrogenase, 3.3 for **phosphohexose isomerase**, 1.9 for 6-phosphogluconic dehydrogenase, 1.2 for lactic acid dehydrogenase, and 1.2 for **purine nucleoside** phosphorylase. Comparing enzyme activity in the young cell fractions with that in the whole erythrocyte population, the decrease in **phosphohexose isomerase** was most striking.

WEST Search History

DATE: Sunday, May 04, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB; PLUR=YES; OP=ADJ		
L19	L15 and l8	39	L19
L18	L14 and l8	781	L18
L17	L16 not synth$4	1	L17
L16	L15 and (synthesis or synthe$4)	326	L16
L15	L14 and @ad<19970718	327	L15
L14	L13 and (make or produce or ferment or synth$4)	1423	L14
L13	L12 and l9	1423	L13
L12	L11 and l10	1486	L12
L11	phosphoglucose isomerase or 6 Phosphoglucose isomerase or Glucose 6 phosphate isomerase or Glucose phosphate isomerase or Glucose phosphoisomerase or Hexose 6 phosphate isomerase or Hexose isomerase or Hexose phosphate isomerase or Hexose phosphate mutase or Hexosemonophosphate isomerase or Oxoisomerase or Phosphoglucoisomerase or Phosphohexoisomerase or Phosphohexomutase or Phosphohexose isomerase or Phosphosaccharomutase	2508	L11
L10	purine$1 or ADENOSINE or GUANOSINE or INOSINE or XANTHOSINE or purine ribonucleoside	33679	L10
L9	Escherichia coli or e coli or Paracolobactrum coliforme	56029	L9
L8	L7 or l6 or l5 or l4 or l3 or l2 or l1	6426	L8
L7	(((435/252.8)!.CCLS.))	232	L7
L6	(((435/243)!.CCLS.))	1083	L6
L5	(((435/194)!.CCLS.))	1163	L5
L4	(((435/193)!.CCLS.))	1130	L4
L3	(((435/183)!.CCLS.))	3026	L3
L2	(((435/88)!.CCLS.))	126	L2
L1	((435/87)!.CCLS.)	93	L1

END OF SEARCH HISTORY

WEST

Generate Collection | Print

Search Results - Record(s) 1 through 30 of 39 returned.

☐ 1. Document ID: US 6541238 B1

L19: Entry 1 of 39 File: USPT Apr 1, 2003

US-PAT-NO: 6541238
DOCUMENT-IDENTIFIER: US 6541238 B1

TITLE: Recombinant cellulose synthase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6255068 B1

L19: Entry 2 of 39 File: USPT Jul 3, 2001

US-PAT-NO: 6255068
DOCUMENT-IDENTIFIER: US 6255068 B1
**** See image for Certificate of Correction ****

TITLE: Variant gas6 polypeptides

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6255062 B1

L19: Entry 3 of 39 File: USPT Jul 3, 2001

US-PAT-NO: 6255062
DOCUMENT-IDENTIFIER: US 6255062 B1

TITLE: .beta.-type DNA polymerases

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 4. Document ID: US 6204020 B1

L19: Entry 4 of 39 File: USPT Mar 20, 2001

US-PAT-NO: 6204020
DOCUMENT-IDENTIFIER: US 6204020 B1

TITLE: DNA encoding N.gradient.2 CSF-1 (short form) and carboxy truncated fragment thereof

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

---

☐ 5. Document ID: US 6146851 A

L19: Entry 5 of 39 File: USPT Nov 14, 2000

US-PAT-NO: 6146851
DOCUMENT-IDENTIFIER: US 6146851 A

TITLE: DNA encoding NV2 (long form) and carboxy truncated fragments thereof

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

---

☐ 6. Document ID: US 6096527 A

L19: Entry 6 of 39 File: USPT Aug 1, 2000

US-PAT-NO: 6096527
DOCUMENT-IDENTIFIER: US 6096527 A
**** See image for Certificate of Correction ****

TITLE: Nucleic acids encoding protein tryosine kinases

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

---

☐ 7. Document ID: US 6087144 A

L19: Entry 7 of 39 File: USPT Jul 11, 2000

US-PAT-NO: 6087144
DOCUMENT-IDENTIFIER: US 6087144 A
**** See image for Certificate of Correction ****

TITLE: Protein tyrosine kinases

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

---

☐ 8. Document ID: US 6057493 A

L19: Entry 8 of 39 File: USPT May 2, 2000

US-PAT-NO: 6057493
DOCUMENT-IDENTIFIER: US 6057493 A

TITLE: Plasmids, plants and plant cells expressing anti-sense patatin and anti-sense

ADP-glucose pyrophosphorylase sequences

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWMC | Draw Desc | Image

---

☐ 9. Document ID: US 6025145 A

L19: Entry 9 of 39 File: USPT Feb 15, 2000

US-PAT-NO: 6025145
DOCUMENT-IDENTIFIER: US 6025145 A

TITLE: Kinase receptor activation assay

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWMC | Draw Desc | Image

---

☐ 10. Document ID: US 6001621 A

L19: Entry 10 of 39 File: USPT Dec 14, 1999

US-PAT-NO: 6001621
DOCUMENT-IDENTIFIER: US 6001621 A

TITLE: Protein tyrosine kinases

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWMC | Draw Desc | Image

---

☐ 11. Document ID: US 5972675 A

L19: Entry 11 of 39 File: USPT Oct 26, 1999

US-PAT-NO: 5972675
DOCUMENT-IDENTIFIER: US 5972675 A

TITLE: Protein kinase which specifically phosphorylates BRCA-1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWMC | Draw Desc | Image

---

☐ 12. Document ID: US 5968799 A

L19: Entry 12 of 39 File: USPT Oct 19, 1999

US-PAT-NO: 5968799
DOCUMENT-IDENTIFIER: US 5968799 A

TITLE: Purified thermostable nucleic acid polymerase enzyme from thermosipho africanus

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc
Image

☐ 13. Document ID: US 5968737 A

L19: Entry 13 of 39 File: USPT Oct 19, 1999

US-PAT-NO: 5968737
DOCUMENT-IDENTIFIER: US 5968737 A
**** See image for Certificate of Correction ****

TITLE: Method of identifying inhibitors of glutathione S-transferase (GST) gene expression

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc
Image

☐ 14. Document ID: US 5962294 A

L19: Entry 14 of 39 File: USPT Oct 5, 1999

US-PAT-NO: 5962294
DOCUMENT-IDENTIFIER: US 5962294 A
**** See image for Certificate of Correction ****

TITLE: Compositions and methods for the identification and synthesis of sialyltransferases

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc
Image

☐ 15. Document ID: US 5952210 A

L19: Entry 15 of 39 File: USPT Sep 14, 1999

US-PAT-NO: 5952210
DOCUMENT-IDENTIFIER: US 5952210 A
**** See image for Certificate of Correction ****

TITLE: Nucleic acids and expression vectors encoding human leukotiene C.sub.4 synthase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc
Image

☐ 16. Document ID: US 5948663 A

L19: Entry 16 of 39 File: USPT Sep 7, 1999

US-PAT-NO: 5948663
DOCUMENT-IDENTIFIER: US 5948663 A

TITLE: Purified thermostable pyrococcus furiosus DNA polymerase I

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

---

☐ 17. Document ID: US 5871988 A

L19: Entry 17 of 39 File: USPT Feb 16, 1999

US-PAT-NO: 5871988
DOCUMENT-IDENTIFIER: US 5871988 A
**** See image for Certificate of Correction ****

TITLE: DNA encoding limonene synthase from Mentha spicata

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

---

☐ 18. Document ID: US 5866395 A

L19: Entry 18 of 39 File: USPT Feb 2, 1999

US-PAT-NO: 5866395
DOCUMENT-IDENTIFIER: US 5866395 A
**** See image for Certificate of Correction ****

TITLE: Purified thermostable pyrococcus furiosus DNA polymerase I

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

---

☐ 19. Document ID: US 5858751 A

L19: Entry 19 of 39 File: USPT Jan 12, 1999

US-PAT-NO: 5858751
DOCUMENT-IDENTIFIER: US 5858751 A

TITLE: Compositions and methods for producing sialyltransferases

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

---

☐ 20. Document ID: US 5834309 A

L19: Entry 20 of 39 File: USPT Nov 10, 1998

US-PAT-NO: 5834309
DOCUMENT-IDENTIFIER: US 5834309 A
**** See image for Certificate of Correction ****

TITLE: Vertebrate apoptosis gene: compositions and methods

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 21. Document ID: US 5795762 A

L19: Entry 21 of 39 File: USPT Aug 18, 1998

US-PAT-NO: 5795762
DOCUMENT-IDENTIFIER: US 5795762 A

TITLE: 5' to 3' exonuclease mutations of thermostable DNA polymerases

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 22. Document ID: US 5744355 A

L19: Entry 22 of 39 File: USPT Apr 28, 1998

US-PAT-NO: 5744355
DOCUMENT-IDENTIFIER: US 5744355 A

TITLE: cDNA cloning and expression of human liver estrogen sulfotransferase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 23. Document ID: US 5714594 A

L19: Entry 23 of 39 File: USPT Feb 3, 1998

US-PAT-NO: 5714594
DOCUMENT-IDENTIFIER: US 5714594 A

TITLE: cDNA cloning and expression of human liver estrogen sulfotransferase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 24. Document ID: US 5700672 A

L19: Entry 24 of 39 File: USPT Dec 23, 1997

US-PAT-NO: 5700672
DOCUMENT-IDENTIFIER: US 5700672 A
**** See image for Certificate of Correction ****

TITLE: Purified thermostable pyrococcus furiousus DNA ligase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 25. Document ID: US 5641668 A

L19: Entry 25 of 39 File: USPT Jun 24, 1997

US-PAT-NO: 5641668
DOCUMENT-IDENTIFIER: US 5641668 A

TITLE: Proteins having glycosyltransferase activity

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 26. Document ID: US 5624833 A

L19: Entry 26 of 39 File: USPT Apr 29, 1997

US-PAT-NO: 5624833
DOCUMENT-IDENTIFIER: US 5624833 A

TITLE: Purified thermostable nucleic acid polymerase enzyme from Thermotoga maritima

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 27. Document ID: US 5593858 A

L19: Entry 27 of 39 File: USPT Jan 14, 1997

US-PAT-NO: 5593858
DOCUMENT-IDENTIFIER: US 5593858 A

TITLE: Highly stable recombinant yeasts for the production of recombinant proteins

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 28. Document ID: US 5545552 A

L19: Entry 28 of 39 File: USPT Aug 13, 1996

US-PAT-NO: 5545552
DOCUMENT-IDENTIFIER: US 5545552 A
**** See image for Certificate of Correction ****

TITLE: Purified thermostable pyrococcus furiosus DNA polymerase I

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 29. Document ID: US 5506137 A

L19: Entry 29 of 39 File: USPT Apr 9, 1996

US-PAT-NO: 5506137
DOCUMENT-IDENTIFIER: US 5506137 A
**** See image for Certificate of Correction ****

TITLE: Purified thermostable Pyrococcus furiosus DNA ligase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

☐ 30. Document ID: US 5466591 A

L19: Entry 30 of 39 File: USPT Nov 14, 1995

US-PAT-NO: 5466591
DOCUMENT-IDENTIFIER: US 5466591 A

TITLE: 5' to 3' exonuclease mutations of thermostable DNA polymerases

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

Generate Collection | Print

Terms	Documents
L15 and l8	39

Display Format: - Change Format

Previous Page Next Page

WEST

Generate Collection | Print

Search Results - Record(s) 31 through 39 of 39 returned.

☐ 31. Document ID: US 5455170 A

L19: Entry 31 of 39 File: USPT Oct 3, 1995

US-PAT-NO: 5455170
DOCUMENT-IDENTIFIER: US 5455170 A

TITLE: Mutated thermostable nucleic acid polymerase enzyme from Thermus species Z05

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 32. Document ID: US 5422254 A

L19: Entry 32 of 39 File: USPT Jun 6, 1995

US-PAT-NO: 5422254
DOCUMENT-IDENTIFIER: US 5422254 A

TITLE: Method to increase the trehalose content of organisms by transforming them with the structural genes for the short and long chains of yeast trehalose synthase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 33. Document ID: US 5420029 A

L19: Entry 33 of 39 File: USPT May 30, 1995

US-PAT-NO: 5420029
DOCUMENT-IDENTIFIER: US 5420029 A

TITLE: Mutated thermostable nucleic acid polymerase enzyme from thermotoga maritima

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 34. Document ID: US 5405774 A

L19: Entry 34 of 39 File: USPT Apr 11, 1995

US-PAT-NO: 5405774
DOCUMENT-IDENTIFIER: US 5405774 A

TITLE: DNA encoding a mutated thermostable nucleic acid polymerase enzyme from thermus species sps17

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

---

☐ 35. Document ID: US 5374553 A

L19: Entry 35 of 39 File: USPT Dec 20, 1994

US-PAT-NO: 5374553
DOCUMENT-IDENTIFIER: US 5374553 A

TITLE: DNA encoding a thermostable nucleic acid polymerase enzyme from thermotoga maritima

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

---

☐ 36. Document ID: US 5302520 A

L19: Entry 36 of 39 File: USPT Apr 12, 1994

US-PAT-NO: 5302520
DOCUMENT-IDENTIFIER: US 5302520 A

TITLE: Enzymatic synthesis of isotopically labeled carbohydrates

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

---

☐ 37. Document ID: US 5116750 A

L19: Entry 37 of 39 File: USPT May 26, 1992

US-PAT-NO: 5116750
DOCUMENT-IDENTIFIER: US 5116750 A
**** See image for Certificate of Correction ****

TITLE: Selectable fusion protein having aminoglycoside phosphotransferase activity

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw Desc

---

☐ 38. Document ID: US 5100786 A

L19: Entry 38 of 39 File: USPT Mar 31, 1992

US-PAT-NO: 5100786
DOCUMENT-IDENTIFIER: US 5100786 A

TITLE: Gene capable of enhancing S-adenosyl-L-methionine accumulation and process for

producing S-adenosyl-L-methionine using the same

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWMC | Draw Desc

☐ 39. Document ID: US 5094947 A

L19: Entry 39 of 39 File: USPT Mar 10, 1992

US-PAT-NO: 5094947
DOCUMENT-IDENTIFIER: US 5094947 A

TITLE: Process for producing fructose-1,6-diphosphate

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWMC | Draw Desc

Generate Collection | Print

Terms	Documents
L15 and l8	39

Display Format: - Change Format

Previous Page Next Page